Complete Summary

GUIDELINE TITLE

World Gastroenterology Organisation practice guideline: esophageal varices.

BIBLIOGRAPHIC SOURCE(S)

World Gastroenterology Organisation (WGO). Esophageal varices. Munich (Germany): World Gastroenterology Organisation (WGO); 2008 Jun. 17 p.

GUIDELINE STATUS

This is the current release of the guideline.

** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse: This guideline references drug(s) for which important revised regulatory and/or warning information has been released.

- July 08, 2008 – Fluoroquinolones (ciprofloxacin, norfloxacin, ofloxacin, levofloxacin, moxifloxacin, gemifloxacin): A BOXED WARNING and Medication Guide are to be added to the prescribing information to strengthen existing warnings about the increased risk of developing tendinitis and tendon rupture in patients taking fluoroquinolones for systemic use.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

- Esophageal varices
- Variceal bleeding
- Portal hypertension

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Prevention
Risk Assessment
Screening
Treatment

CLINICAL SPECIALTY

Critical Care
Emergency Medicine
Gastroenterology
Internal Medicine
Radiology
Surgery

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To provide globally relevant recommendations on the diagnosis, evaluation, management, and treatment of esophageal varices

TARGET POPULATION

Patients with cirrhosis with and without esophageal varices

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Evaluation

1. Diagnostic procedures
    - Esophagogastroduodenoscopy (EGD): screening and surveillance
    - Doppler ultrasonography
    - Radiography/barium swallow of esophagus and stomach
    - Portal vein angiography
    - Manometry
    - Noninvasive markers (predictive accuracy unsatisfactory)
    - Endoscopic ultrasound (not recommended)
2. Differential diagnosis of etiologies of upper gastrointestinal bleeding
3. Assessment of risk factors
4. Hepatic venous pressure gradient (HVPG)

5. The Child-Pugh classification of the severity of cirrhosis
6. Classification of patients according to stage in the natural history of varices
7. Frequency of surveillance

Management/Treatment

1. Pharmacologic therapy
    - Splanchnic vasoconstrictors (vasopressin [analogues], somatostatin [analogues], and non-cardioselective beta-blockers)
    - Vasodilators (nitrates alone not recommended)
    - Combination therapy of vasoconstrictors and vasodilators (routine use is not recommended)
    - Prophylactic antibiotic therapy (norfloxacin, ciprofloxacin, ceftriaxone)
2. Endoscopic therapy
    - Sclerotherapy
    - Variceal band ligation
    - Surgical shunts
    - Radiological shunt
    - Transjugular intrahepatic portosystemic shunt (TIPS)
    - Balloon tamponade
3. Duration of treatment
4. Follow-up

MAJOR OUTCOMES CONSIDERED

- Incidence and prevalence of esophageal and gastric bleeding
- Change in Child-Pugh score and grade
- Incidence of spontaneous bacterial peritonitis
- Incidence of hepatic decompensation
- Mortality
- Drug side effects

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

World Gastroenterology Organization's (WGO's) Graded Evidence System

WGO's Grading Evidence System is built to help National Societies of Gastroenterology and all those interested in the practice and research of gastroenterology keep track of the literature in topics covered by WGO Guidelines.

Evidence is classified into three categories:

- Systematic reviews, consensus statements, meta-analyses, evidence-based practice guidelines

- Clinical trials
- Other reading

The following journals are scanned for new evidence:

- Gastroenterology
- Annals of Internal Medicine
- Hepatology
- GUT
- Journal of Hepatology
- Alim. pharmacology & therapeutics
- American Journal of Gastroenterology
- Inflammatory Bowel Disease
- Gastrointestinal Endoscopy
- J. of Pediatric Gastroenterology & Nutrition
- Digestion
- Scandinavian Journal of Gastroenterology
- Eur. J. of Gastroenterology and Hep.
- Digestive Diseases and Sciences
- Endoscopy
- J. of Gastroenterology and Hepatology
- Digestive Surgery
- Digestive Diseases

Plus a selection from the general journals:

- New England Journal of Medicine
- JAMA
- Lancet
- BMJ
- Nature
- Science

Coverage

Graded Evidence is an iterative process—and for that reason need not be so concerned with searching both Medline, Embase and Biosis for example. All top gastrointestinal (GI) journals are covered by both Medline and Embase and in single one-off complex searches unique citations in one or the other are often due either to differences in database currency or differences in coverage of less important journals. In addition to cost issues, the generous republishing and copyright policies of the US National Library of Medicine (NLM) make Medline the preferred choice.

Search Strategies

Search strategies for each topic are based on a combination of controlled access and free text terms. The strategies aim for "precision" rather than "sensitivity." Busy gastroenterologists probably prefer very precise search strategies in top GI journals and thus make sure every major article is found. The WGO Graded Evidence works along the lines of PUBMED Medline "Clinical queries" features. Precise searches only find relevant information. Indexing errors may still be

responsible for irrelevant or duplicate records. Case studies and animal studies are not usually included.

Finding Evidence

True evidence-based searches require a deeper understanding of databases and search strategies not necessary for our purpose. WGO Global Guidelines are not systematic reviews. The WGO Library adheres to the Cochrane Collaboration's views that a searcher has to work through a hierarchy of evidence as follows.

- Cochrane Collaboration Systematic Reviews
- DARE Systematic Reviews
- Randomized Clinical Trials (e.g., in the Cochrane Controlled Clinical Trials Database)

As you move down the hierarchy you are more likely to find "opinion" instead of evidence.

Guideline Specific Search Strategies

Existing evidence was searched using precise rather than sensitive syntax for each platform searched. Relevant guidelines were searched on the National Guidelines Clearinghouse platform at http://www.ngc.org and on the websites of the major gastroenterology and hepatology societies. Further searches were carried out in Medline and Embase on the Dialog-Datastar platform from 2003 onwards.

NUMBER OF SOURCE DOCUMENTS

- 54 meta-analyses, systematic reviews, and practice guidelines
- 46 clinical trials
- 30 other readings

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review
Review of Published Meta-Analyses

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

This guideline was written by the review team after a series of literature searches were carried out to establish what had changed since the World Gastroenterology Organisation's (WGO) first position statement on the topic of esophageal varices, published in May 2003.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Not stated

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not applicable

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Risk Factors

The presence of one or more of the conditions in Table 1 below represents an indication for endoscopy to search for varices and carry out primary prophylaxis against bleeding in cirrhotic patients.

Table 1: Risk Factors for Esophageal Varices and Hemorrhage

Development of Varices
• High portal vein pressure: HVPG>10 mmHg in patients who have no varices at initial endoscopic screening
Progression from Small to Large Varices
• Decompensated cirrhosis (Child-Pugh B/C)

• Alcoholic cirrhosis • Presence of red wale marks at baseline endoscopy (longitudinal dilated venules resembling ship marks on the variceal surface)
Initial Varices Bleeding Episode
• Poor liver function • Continuing alcohol consumption • Ascites • Acid reflux
Variceal Hemorrhage
• Size of varices – highest risk of first hemorrhage (15% per year) in patients with large varices • Decompensated cirrhosis (Child-Pugh B/C) • Endoscopic presence of red wale marks

HVPG, hepatic venous pressure gradient

Diagnosis and Differential Diagnosis

Esophagogastroduodenoscopy (EGD) is the gold standard for the diagnosis of esophageal varices. If the gold standard is not available, other possible diagnostic steps would be Doppler ultrasonography of the blood circulation (not endoscopic ultrasonography). Although this is a poor second choice, it can certainly demonstrate the presence of varices. Further alternatives include radiography/barium swallow of the esophagus and stomach, and portal vein angiography and manometry.

It is important to assess the location (esophagus or stomach) and size of the varices, signs of imminent, first acute, or recurrent bleeding, and (if applicable) to consider the cause and severity of liver disease.

Table 2: Guideline for Diagnosing Esophageal Varices

1. A screening esophagogastroduodenoscopy (EGD) for the diagnosis of esophageal and gastric varices is recommended when a diagnosis of cirrhosis has been made		
2. Surveillance endoscopies are recommended on the basis of the level of cirrhosis and the presence and size of the varices:		
Patients with	*and*	*Repeat EGD*
Compensated cirrhosis	No varices Small varices	Every 2-3 years Every 1-2 years
Decompensated cirrhosis		Yearly intervals
3. Progression of gastrointestinal varices can be determined on the basis of the size		

classification at the time of EGD. In practice, the recommendations for medium-sized varices in the three-size classification are the same as for large varices in the two-size classification:		
Size of varix	*Two-size classification*	*Three-size classification*
Small	<5 mm	Minimally elevated veins above the esophageal mucosal surface
Medium		Tortuous veins occupying less than one-third of the esophageal lumen
Large	>5 mm	Occupying more than one-third of the esophageal lumen
4. Variceal hemorrhage is diagnosed on the basis of one of the following findings on endoscopy: • Active bleeding from a varix • "White nipple" overlying a varix • Clots overlying a varix • Varices with no other potential source of bleeding		

Differential Diagnosis of Esophageal Varices/Hemorrhage

The differential diagnosis for variceal hemorrhage includes all etiologies of (upper) gastrointestinal bleeding. Peptic ulcers are also more frequent in cirrhotics.

Table 3: Differential Diagnosis of Esophageal Varices/Hemorrhage

• Schistosomiasis • Severe congestive heart failure • Hemochromatosis • Wilson's disease • Autoimmune hepatitis • Portal/splenic vein thrombosis • Sarcoidosis • Budd-Chiari syndrome • Chronic pancreatitis • Hepatitis B • Hepatitis C • Alcoholic cirrhosis • Primary biliary cirrhosis (PBC) • Primary sclerosing cholangitis (PSC)

Note: all of these lead to the development of esophageal varices as a result of portal hypertension.

Other Considerations

Table 4: Considerations in the Diagnosis, Prevention, and Management of Esophageal Varices and Variceal Hemorrhage

Screening esophagogastroduodenoscopy (EGD) in cirrhotic patients • The presence of high-grade varices or red wale marks may be an indication for prophylactic banding • Beta-blockers prevent bleeding in > 50% of patients with medium/large varices – these occur in 15-25% of patients, which means that many who undergo screening EGD do not have varices or do not require prophylactic therapy • Expensive; requires sedation • Can be avoided in cirrhotic patients with nonselective beta-blocker treatment for arterial hypertension or other reasons
Noninvasive markers – (e.g., platelet count, FibroTest, spleen size, portal vein diameter, transient elastography) • Predictive accuracy still unsatisfactory
Beta-Blocker therapy • Cost-effective form of prophylactic therapy in comparison with sclerotherapy and shunt surgery • Does not prevent varices • Has significant side effects • Patients receiving a selective beta-blocker (metoprolol, atenolol) for other reasons should switch to a nonselective beta-blocker (propranolol, nadolol)

Management of Varices and Hemorrhage

The following treatment options are available in the management of esophageal varices and hemorrhage (see Tables 5 and 6 below). Although they are effective in stopping bleeding, none of these measures, with the exception of endoscopic therapy, has been shown to affect mortality.

Table 5: Pharmacological Therapy

Splanchnic Vasoconstrictors • Vasopressin (analogues) • Somatostatin (analogues) • Non-cardioselective beta-blockers Pharmacotherapy with somatostatin (analogues) is effective in stopping hemorrhage, at least temporarily, in up to 80% of patients. Somatostatin may be superior to its analogue octreotide. About 30% of patients do not respond to beta-blockers with a

reduction in the hepatic venous pressure gradient (HVPG), despite adequate dosing. These non-responders can only be detected by invasive HVPG measurements. Moreover, beta-blockers may cause side effects such as fatigue and impotence, which may impair compliance (especially in younger males), or beta-blockers may be contraindicated for other reasons.
Venodilators • Nitrates Nitrates alone are not recommended. Isosorbide 5-mononitrate reduces portal pressure, but its use in cirrhotic patients is limited by its systemic vasodilatory effects, often leading to a further decrease in blood pressure and potentially to (prerenal) impairment of kidney function.
Vasoconstrictors and Vasodilators Combination therapy leads to a synergistic effect in reducing portal pressure. Combining isosorbide 5-mononitrate with nonselective beta-blockers has been shown to have additive effects in lowering portal pressure and to be particularly effective in patients who do not respond to initial therapy with beta-blockers alone. However, these beneficial effects may be outweighed by detrimental effects on kidney function and long-term mortality, especially in those aged over 50. Routine use of combination therapy is therefore not recommended.

Table 6. Endoscopic Therapy

Local Therapies • Sclerotherapy or endoscopic variceal ligation (EVL) • No effect on portal flow or resistance
Shunting Therapy • Surgical or radiological (transjugular intrahepatic portosystemic shunt [TIPS]) • Reduces portal pressure

Endoscopic sclerotherapy and variceal ligation are effective in stopping bleeding in up to 90% of patients. Endoscopic band ligation is as effective as sclerotherapy, but is associated with fewer side effects. However, endoscopic band ligation may be more difficult to apply than sclerotherapy in patients with severe active bleeding.

A TIPS is a good alternative when endoscopic treatment and pharmacotherapy fail.

The use of balloon tamponade is decreasing, as there is a high risk of rebleeding after deflation and a risk of major complications. Nevertheless, balloon tamponade is effective in most cases in stopping hemorrhage at least temporarily, and it can be used in regions of the world where EGD and TIPS are not readily available. It can help stabilize the patient in order to gain time and access to EGD and/or TIPS later.

Clinical Practice: The Approach in Patients with Cirrhosis and Various Stages of Varices/Hemorrhage

Patients with Cirrhosis But No Varices (see Figure 4a in the original guideline document)

- Beta-blockers do not prevent varices
- Repeat EGD in 3 years
- Immediate EGD if hepatic decompensation occurs

Patients with Cirrhosis and Small Varices, But No Hemorrhage (see Figure 4b in the original guideline document)

- Increased risk of hemorrhage: Child B/C or presence of red wale marks: nonselective beta-blockers for prevention of first variceal hemorrhage
- No increased risk: beta-blockers can be used - long-term benefits not established
- Not receiving beta-blockers: Repeat EGD in 2 years
- In case of hepatic decompensation: EGD at once; repeat annually
- Patients on beta-blockers: follow-up EGD not necessary

Because many patients do not respond to beta-blocker treatment or bleeding prophylaxis, it is recommended that EGD be repeated after 2 years (as for those not receiving beta-blockers).

Patients with Cirrhosis and Medium or Large Varices, But No Hemorrhage (see Figure 4c in the original guideline document)

- High risk of hemorrhage: Child B/C or variceal red wale markings: beta-blockers (propranolol or nadolol) or endoscopic variceal ligation (EVL) recommended for prevention of first variceal hemorrhage
- Not at highest risk: Child A patients and no red signs: Nonselective beta-blockers (propranolol or nadolol) preferred
- In case of contraindications/intolerance/noncompliance, consider EVL
- Noncardioselective beta-blockers (propranolol or nadolol), starting at a low dosage, if necessary increasing the dose step by step until a reduction in the resting heart rate of 25%, but not lower than 55 beats/min, is reached.
- In comparison with beta-blockers, endoscopic variceal ligation was found to reduce bleeding episodes and severe adverse events significantly, but it had no effect on the mortality rate.

Patients with Cirrhosis and Acute Variceal Hemorrhage

Table 7: Management of Acute Variceal Hemorrhage in Patients with Cirrhosis

Emergency Scheme	Next 12-24 Hours
Resuscitation measures • Intravenous (IV) volume support • Blood transfusion • Correct severe coagulation/platelet deficits	Within 12 hours: • Confirm diagnosis with EGD • Treat variceal hemorrhage with EVL or sclerotherapy
Antibiotic prophylaxis (up to 7 days): • Oral norfloxacin (400 mg twice daily [BID]), or • IV ciprofloxacin (400 mg BID), or • IV ceftriaxone (1 g/day) in advanced cirrhosis	In uncontrollable bleeding or recurrence: • TIPS indicated
Pharmacological therapy • Continue 3-5 days after confirmed diagnosis • Somatostatin (terlipressin or octreotide, vapreotide)	In uncontrollable bleeding while waiting for TIPS or endoscopic therapy: • Balloon tamponade as temporizing measure for 24 hours maximum

Acute variceal hemorrhage is often associated with bacterial infection due to gut translocation and motility disturbances. Prophylactic antibiotic therapy has been shown to increase the survival rate.

- In acute or massive variceal bleeding, tracheal intubation can be extremely helpful to avoid bronchial aspiration of blood.
- In patients with variceal hemorrhage in the gastric fundus: endoscopic variceal obturation using tissue adhesives (such as cyanoacrylate) is preferred; the second choice is EVL.
- TIPS should be considered in uncontrollable fundic variceal bleeding or recurrence despite combined pharmacological and endoscopic therapy.
- Emergency sclerotherapy is not better than pharmacological therapy for acute variceal bleeding in cirrhosis.
- Treating bleeding in the esophagus with somatostatin analogues does not appear to reduce deaths, but may lessen the need for blood transfusions.

Patients with Cirrhosis Who Have Recovered from Acute Variceal Hemorrhage (see Figure 4e in the original guideline document)

- Secondary prophylaxis: nonselective beta-blockers plus EVL:
    - Adjust beta-blocker to maximal tolerated dose

    - Repeat EVL every 1-2 weeks until obliteration with EGD at 1-3 months
- In Child A/B patients with recurrent hemorrhage despite combination therapy:
    - Consider surgical shunt in Child A patients
    - Refer to transplant center for evaluation

Long-term endoscopic control and banding or sclerotherapy of recurrent varices every 3-6 months (only sclerotherapy will be available in many places in the developing world). If endoscopic band ligation is not available or contraindicated, noncardioselective beta-blockers (propranolol or nadolol) starting at a low dosage and if necessary increasing the dosage step by step until a reduction in the resting heart rate by 25%, but not lower than 55 beats/min, is achieved.

In younger patients with less advanced cirrhosis (Child-Pugh A), the addition of isosorbide 5-mononitrate (starting at 2 x 20 mg per day and increasing to 2 x 40 mg per day) may be considered if sclerotherapy or pharmacotherapy fail. TIPS should be considered, especially in candidates for liver transplantation. In selected cases (patients with well-preserved liver function, stable liver disease), a calibrated H graft or a distal splenorenal shunt (Warren shunt) may be considered.

Portosystemic shunts are associated with lower rates of variceal rebleeding in comparison with sclerotherapy/banding, but they increase the incidence of hepatic encephalopathy.

Liver transplantation should always be considered if the patient has Child-Pugh grades B or C.

Recommendations for First-Line Management of Cirrhotic Patients at Each Stage in the Natural History of Varices (see Figure 5 in the original guideline document)

No varices

- Repeat endoscopy in 2-3 years

Small varices - no hemorrhage

- Repeat endoscopy in 1-2 years

Medium/large varices - no hemorrhage

- Beta-blocker (propranolol, nadolol)
- EVL if beta-blockers are not tolerated

Variceal hemorrhage

- Specific therapy: safe vasoactive drug + EVL

Recurrent hemorrhage

- Beta-blockers +/- isosorbide 5-mononitrate (ISMN) or EVL

- Beta-blockers + EVL

Cascade for Treatment

A cascade is a hierarchical set of diagnostic or therapeutic techniques for the same disease, ranked by the resources available.

As outlined above, several therapeutic options are effective in most clinical situations involving acute variceal hemorrhage, as well as in secondary and primary prophylaxis against it. The optimal therapy in an individual setting very much depends on the relative ease of local availability of these methods and techniques. This is likely to vary widely in different parts of the world.

If endoscopy is not readily available, one has to resort to pharmacotherapy in any case of suspected variceal bleeding (e.g., in patients with hematemesis and signs of cirrhosis). Similarly, pharmacological therapy might be administered in circumstances such as primary prophylaxis in a cirrhotic patient with signs of portal hypertension (splenomegaly, thrombocytopenia) and/or impaired liver function, and as secondary prophylaxis in a cirrhotic patient with a history of upper gastrointestinal bleeding.

If pharmacotherapy is also not available and variceal bleeding is suspected, one must resort to general resuscitation measures and transport the patient as soon as possible to an institution where the necessary diagnostic/therapeutic means are available; balloon tamponade could be extremely helpful in such a situation.

Cascade for the Treatment of Acute Esophageal Variceal Hemorrhage

▪ Band ligation + vasoactive IV drug therapy: octreotide or terlipressin [gold standard]
▪ Band ligation
▪ Sclerotherapy
▪ Balloon therapy

Note: The combination of band ligation and sclerotherapy is not routinely used except when the bleeding is too extensive for a vessel to be identified for banding. In such cases, sclerotherapy can be carried out in order to control the bleeding and clear the field sufficiently for banding to be done afterward.

Caution: There are many conditions that can lead to esophageal varices. There are also many treatment options, depending on the resources available. For a resource-sensitive approach to treatment in Africa, for example, *Fedail SS. Esophageal varices in Sudan. Gastrointest Endosc 2002;56:781-2* can be consulted.

CLINICAL ALGORITHM(S)

Algorithms for the approach in patients with cirrhosis and various stages of varices/hemorrhage are provided in the original guideline document.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate diagnosis, management, and treatment of esophageal varices with and without variceal bleeding

POTENTIAL HARMS

- Beta-blockers may cause side effects such as fatigue and impotence, which may impair compliance (especially in younger males).
- Isosorbide 5-mononitrate reduces portal pressure, but its use in cirrhotic patients is limited by its systemic vasodilatory effects, often leading to a further decrease in blood pressure and potentially to (prerenal) impairment of kidney function.
- The beneficial effects of combination therapy with vasoconstrictors and vasodilators may be outweighed by detrimental effects on kidney function and long-term mortality, especially in those aged over 50.
- The use of balloon tamponade is decreasing, as there is a high risk of rebleeding after deflation and a risk of major complications.
- Portosystemic shunts are associated with lower rates of variceal rebleeding in comparison with sclerotherapy/banding, but they increase the incidence of hepatic encephalopathy.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Clinical Algorithm
Foreign Language Translations

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Timeliness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

World Gastroenterology Organisation (WGO). Esophageal varices. Munich (Germany): World Gastroenterology Organisation (WGO); 2008 Jun. 17 p.

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2008 Jun

GUIDELINE DEVELOPER(S)

World Gastroenterology Organisation - Medical Specialty Society

SOURCE(S) OF FUNDING

World Gastroenterology Organisation (WGO-OMGE)

GUIDELINE COMMITTEE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the World Gastroenterology Organisation (WGO-OMGE) Web site.

Print copies: Available from the World Gastroenterology Organisation (WGO-OMGE), c/o Medconnect GMBH, Brünnsteinster. 10, 81541 Munich, Germany

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Graded evidence. Professor Elewaut's essential reading. Available from the World Gastroenterology Organisation (WGO-OMGE) Web site.
- French, Mandarin, Portuguese and Spanish translations of the original guideline. Available from the World Gastroenterology Organisation (WGO-OMGE) Web site.

Print copies: Available from the World Gastroenterology Organisation (WGO-OMGE), c/o Medconnect GMBH, Brünnsteinster. 10, 81541 Munich, Germany.

PATIENT RESOURCES

None available

NGC STATUS

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